

METHOD AND APPARATUS FOR PROVIDING
CROSS-BENEFITS BASED ON A CUSTOMER ACTIVITY

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5 The present application is a continuation-in-part application of co-
pending U.S. Patent Application No. 09/219,267 entitled "METHOD AND
APPARATUS FOR FACILITATING ELECTRONIC COMMERCE THROUGH
PROVIDING CROSS-BENEFITS DURING A TRANSACTION", filed on
December 23, 1998; and is a continuation-in-part application of co-pending U.S.
Patent Application No. ^{09/274,281}~~09/219,267~~ (attorney Docket No. 99-006) entitled "METHOD
10 AND APPARATUS FOR PROVIDING CROSS-BENEFITS VIA A CENTRAL
AUTHORITY", filed on March 22, 1999; which is a continuation-in-part application
of co-pending U.S. Patent Application No. 09/219,267 entitled "METHOD AND
APPARATUS FOR FACILITATING ELECTRONIC COMMERCE THROUGH
PROVIDING CROSS-BENEFITS DURING A TRANSACTION", filed on
15 December 23, 1998; and is a continuation-in-part application of co-pending U.S.
Patent Application No. ^{09/166,367}~~09/116,367~~ entitled "METHOD AND APPARATUS FOR
PROVIDING A DISCOUNT TO A CUSTOMER THAT PARTICIPATES IN
TRANSACTIONS AT A PLURALITY OF MERCHANTS", filed on October 5,
1998; the entirety of each incorporated by reference herein as part of the present
20 disclosure.

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FIELD OF THE INVENTION

The present invention relates to methods and apparatus for facilitating
commerce.

BACKGROUND OF THE INVENTION

There is a great deal of competition among vendors to attract and retain customers. Even when a customer has browsed a vendor's inventory, he will not make a purchase if an item's price is greater than the amount the customer is willing to pay. One way to increase customer willingness to purchase is to provide discounts on items purchased. Unfortunately, vendors must use discounts sparingly, since reducing purchase prices likewise reduces margins and the reduced margins may not be offset by increased sales volume.

A vendor may also offer promotions to provide an incentive for customers to make purchases. For example, a vendor may offer a "buy one get one free" promotion whereby a purchase of an item yields the benefit of an additional item at no cost. Similarly, a vendor may provide a discount on a purchase in exchange for signing up for a credit card account provided by the vendor.

Promotions may also be provided among two or more vendors. For example, a first vendor may advertise that if a particular product is purchased, another product may be purchased from or given away by a second vendor.

A parent application of the present application, U.S. Patent Application No. 09/219,267 entitled "METHOD AND APPARATUS FOR FACILITATING ELECTRONIC COMMERCE THROUGH PROVIDING CROSS-BENEFITS DURING A TRANSACTION", filed on December 23, 1998, discloses a method and apparatus that permits a customer that is purchasing items from a first vendor to receive a benefit (e.g. a credit for the price of the items) from a second vendor. The present application provides further embodiments of this novel and beneficial invention.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a method and apparatus for facilitating commerce.

5 In accordance with the present invention, a controller receives information relating to customer activity with a first vendor, typically via a Web page that a customer accesses. The controller further receives an indication of items (goods and/or services) the customer desires to purchase, the items having an associated total price. The controller determines, based on any of various criteria, whether to provide
10 an offer for a subsidy based on the information relating to customer activity. For example, a customer who places certain items in his virtual "shopping cart" may receive such an offer. The offer for a subsidy is from a second vendor (a subsidizing vendor), and may define, for example, a reduction in the price charged for the item and an obligation for the customer to fulfill in exchange for the subsidy. For example,
15 the customer may be obliged to sign up for a credit card or telephone service provided by the subsidizing vendor.

 An indication of the offer for the subsidy is provided to the customer, e.g., via a text or graphical display on the Web page. The customer responds via known user interface techniques and, if he accepts the offer, he is charged a second
20 price for the items. The second price is less than the total price, and may even be zero. Thus the customer may get his desired items for free in exchange for fulfilling the obligation with the subsidizing vendor.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1A is a schematic illustration of an embodiment of an apparatus for facilitating commerce in accordance with the present invention.

FIG. 1B is a schematic illustration of another embodiment of an apparatus for facilitating commerce in accordance with the present invention.

FIG. 2 is a schematic illustration of a controller of the apparatus of FIG. 1.

FIG. 3 is a schematic illustration of a vendor server of the apparatus of FIG. 1.

FIG. 4 is a representation of a customer database of the controller of FIG. 2.

FIG. 5 is a representation of a vendor database of the controller of FIG. 2.

FIG. 6 is a representation of a transaction database of the controller of FIG. 2.

FIG. 7 is a representation of a subsidizer database of the controller of FIG. 2.

FIG. 8 is a representation of an offer rules database of the controller of FIG. 2.

FIG. 9 is a representation of an offers database of the controller of FIG. 2.

FIG. 10 is a representation of a record of an offer summary database of the controller of FIG. 2.

FIG. 11 is a representation of a record of another embodiment of the offer summary database.

FIG. 12 is a schematic illustration of an item database of the vendor server of FIG. 3.

5 FIG. 13 is a flow chart illustrating an embodiment of a method for providing an offer for a benefit.

FIG. 14 is a flow chart illustrating an embodiment of a method for providing an offer for a benefit using offer rules.

10 FIGS. 15A and 15B are a flow chart illustrating an embodiment of a method for providing an offer which may be accepted by fulfilling an obligation associated with the offer.

FIG. 16 is a flow chart illustrating an embodiment of a method for determining whether customers have fulfilled their obligations associated with an offer for a benefit.

15 FIG. 17 is a flow chart illustrating an embodiment of a method for providing an offer for a benefit after a customer has made a purchase from a vendor.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Applicants have recognized that the acquisition budgets of various service providers may be advantageously used to facilitate commerce. A customer that purchases items from a first vendor may be paid, directly or indirectly, by a second vendor, so that the customer pays a reduced price, perhaps nothing at all, for his desired items. In exchange, the customer participates or agrees to participate in a transaction with the second vendor. For example, the customer may be required to

sign up for a service that is provided by the second vendor. Since many service providers are willing to pay significant amounts of money (e.g. often \$50 to \$200) to acquire a new customer, the ability to acquire a customer by essentially "intervening" in a sale between others can benefit all parties involved. In short, the second vendor provides a subsidy to the customer. The customer is benefited by the reduced price of his items, the first vendor is benefited by the increased sales and customer satisfaction that such an arrangement would bring, and the second vendor is benefited by the additional transaction, particularly the acquisition of a new customer in one embodiment.

10 In addition, applicants have also recognized that various types of customer activities may be used to indicate, among other things, whether the customer is likely to accept an offer for a benefit from a subsidizing vendor. For example, when a customer begins to interact with a first vendor (e.g. via the first vendor's Web site), various types of customer activity may be used to indicate whether the customer is willing to transact with the first vendor. Similarly, various types of customer activity may be used to indicate whether the customer is willing to transact with a subsidizing vendor. Detection of such customer activity can assist in identifying, e.g., which customers should be given offers for subsidies, and when.

Referring to FIG. 1A, an apparatus 100 includes a controller 110 that is in communication with a vendor server 120. The controller 110 and the vendor server 120 may comprise computers, such as those based on an Intel® Pentium® microprocessor, that are adapted to communicate via the Internet (e.g. via a modem) or other medium. Any number of vendor servers may be in communication with the controller 110. Those skilled in the art will understand that devices in communication

with each other need not be continually transmitting to each other. On the contrary, such devices need only transmit to each other as necessary, and may actually refrain from exchanging data most of the time. For example, a device in communication with another device via the Internet may not transmit data to the other device for weeks at a time.

5 The vendor server 120 may be a "Web server" of a vendor (e.g. a retail seller). A vendor server could then generate Web pages (documents on the World Wide Web that typically include an HTML file and associated graphics and script files) that may be accessed via the World Wide Web and allow purchases from the vendor to be made in a manner known in the art. A Web site consists of several such Web pages and associated databases served up by an HTTP server (e.g. the vendor server 120) on the World Wide Web. Alternatively, the vendor server 120 may be a computer involved in operating a physical store. Such a computer, for example a point of sale (POS) server, would perform such tasks as inventory management and transaction processing for the store.

10 The controller 110 is also in communication with a subsidizing vendor server 140. The subsidizing vendor server 140 may comprise a computer, such as those based on an Intel® Pentium® microprocessor, that is adapted to communicate via the Internet (e.g. via a modem) or other medium. Any number of subsidizing vendor servers may be in communication with the controller 110.

15 The subsidizing vendor server 140 may be a "Web server" of a vendor. The subsidizing vendor server 140 could then generate a Web page that may be accessed via the World Wide Web and allow transactions with the subsidizing vendor in a manner known in the art. Alternatively, the subsidizing vendor server 140 may

be a computer involved in operating a physical store. Such a computer would perform such tasks as inventory management and transaction processing.

The vendor server 120 may be in communication with a customer terminal 130 that transmits data regarding a customer transaction (e.g. a purchase).

- 5 Any number of customer terminals may be in communication with the vendor server 120. The customer terminal 130 may be a point of sale (POS) terminal, such as the NCR 7454 manufactured by NCR Corporation or the IBM 4683 manufactured by International Business Machines. As is known in the art, POS terminals perform such processes as calculating the total price of a purchase (goods or services) and
- 10 calculating the amount of change due to a customer. POS terminals may furthermore track purchases made and adjust databases of inventory accordingly.

- In another embodiment, the customer terminal 130 may be a computer, such as those based on an Intel® Pentium® microprocessor, that are adapted to communicate via the Internet (e.g. via a modem) or other medium. Such computers
- 15 are able to appropriately access a Web page to communicate with a vendor server in a manner that is known to those skilled in the art.

- In still other embodiments, the customer terminal 130 may be a telephone, an automated teller machine (ATM), slot machine, a vending machine or other device that receives payment from customers in exchange for providing goods
- 20 or services. The vendor server in such an embodiment could include an IVRU (Interactive Voice Response Unit), such as the Vision 2001 or the Insight IVR/Web, both from Interactive Voice Technologies, Corp., or the OmniVox for Windows NT from APEX Voice Communications. An IVRU allows a user of a DTMF (Dual Tone Multi-Frequency) signal generating telephone to communicate with a computer. The

DTMF signals received from the user's telephone are interpreted by the vendor server, and the vendor server may also communicate with the user by generating and transmitting voice or other audio signals, such as an list of IVRU menu options.

The use of the controller 110 is especially advantageous in an
5 embodiment where a plurality of subsidizing vendors and/or a plurality of vendor servers serving customers participate in the described invention. A parent application, U.S. Patent Application No. ^{09/274,281} ~~11,274,281~~ (attorney Docket No. 99-006) entitled "METHOD AND APPARATUS FOR PROVIDING CROSS-BENEFITS VIA A CENTRAL AUTHORITY", filed March 22, 1999, the entirety of which is
10 incorporated by reference herein as part of the present disclosure, discloses an invention utilizing such a controller.

Referring to FIG. 1B, an apparatus 150 represents another embodiment of an apparatus for facilitating commerce in accordance with the present invention. Specifically, in the apparatus 150 a vendor server 160 communicates with a customer
15 terminal 170 and with a subsidizing vendor server 180 without the intervening controller 110. Accordingly, the embodiment illustrated by FIG. 1B is appropriate for a direct relationship between the vendor servicing customers and the subsidizing vendor.

Referring to FIG. 2, reference numeral 200 indicates a device that may
20 be the controller 110 (FIG. 1A). In another embodiment, the functionality of the device 200 may be performed by another device, such as the vendor server 160 (FIG. 1B), which operates to provide a customer with an offer for a subsidy from a second vendor.

5 The device 200 comprises a processor 202, such as an Intel® Pentium® microprocessor. The processor 202 is in communication with a data storage device 210, such as an appropriate combination of magnetic, optical and/or semiconductor memory. For example, the data storage device 210 may comprise one or more of a ROM, RAM and hard disk. The processor 202 and the data storage device 210 may each be (i) located entirely within a single computer or other computing device; (ii) connected to each other by a remote communication medium, such as a serial port cable, telephone line or radio frequency transceiver; or (iii) a combination thereof. In one embodiment, the controller 110 may comprise one or more computers that are connected to a remote server computer for maintaining databases.

10 The data storage device 210 stores a program 220 for controlling the processor 202. The processor 202 performs instructions of the program 220, and thereby operates in accordance with the present invention, and particularly in accordance with the methods described in detail herein. The program 220 furthermore includes program elements that may be necessary, such as an operating system and "device drivers" for allowing the processor 202 to interface with computer peripheral devices. Appropriate device drivers and other necessary program elements are known to those skilled in the art, and need not be described in detail herein.

20 The storage device 210 also stores (i) a customer database 230, (ii) a vendor database 240, (iii) a transaction database 250, (iv) a subsidizer database 260, (v) an offer rules database 270, (vi) an offers database 280 and (vii) an offer summary database 290. The databases 230, 240, 250, 260, 270, 280 and 290 are described in detail below and depicted with exemplary entries in the accompanying figures. As

will be understood by those skilled in the art, the schematic illustrations and accompanying descriptions of the databases presented herein are exemplary arrangements for stored representations of information. A number of other arrangements may be employed besides those suggested by the tables shown.

- 5 Similarly, the illustrated entries of the databases represent exemplary information, and those skilled in the art will understand that the number and content of the entries can be different from those illustrated herein.

FIG. 3 illustrates the vendor server 120 of FIG. 1A. As described above with reference to FIG. 1B, in one embodiment the vendor server may
10 communicate with a subsidizing vendor server 180 without the intervening controller 110. Accordingly, the description of the vendor server 120 is applicable to the vendor server 160 of FIG. 1B. In such an embodiment, the databases stored by the data storage device of the vendor server could include the databases depicted in FIGS. 2 and 3.

- 15 The vendor server 120 comprises a processor 302, such as an Intel® Pentium® microprocessor, which is in communication with a customer terminal 315 and the controller 110. The processor 302 is also in communication with a data storage device 310, such as an appropriate combination of magnetic, optical and/or semiconductor memory. For example, the data storage device 310 may comprise one
20 or more of a ROM, RAM and hard disk. The processor 302 and the data storage device 310 may each be (i) located entirely within a single computer or other computing device; (ii) connected to each other by a remote communication medium, such as a serial port cable, telephone line or radio frequency transceiver; or (iii) a combination thereof. In one embodiment, the vendor server 120 may comprise one or

more computers that are connected to a remote server computer for maintaining databases.

The data storage device 310 stores a program 320 for controlling the processor 302. The processor 302 performs instructions of the program 320, and
5 thereby operates in accordance with the present invention, and particularly in accordance with the methods described in detail herein. The program 320 furthermore includes program elements that may be necessary, such as an operating system and "device drivers" for allowing the processor 302 to interface with computer peripheral devices. Appropriate device drivers and other necessary program elements
10 are known to those skilled in the art, and need not be described in detail herein.

The storage device 310 also stores (i) a customer database 330, (ii) an item database 340, and (iii) a transaction database 350. The customer database 330 and the transaction database 350 of the vendor server 120 may be similar or identical to the customer database 230 and transaction database 250 of the controller 110. For
15 example, the controller 110 may store data that is derived from the vendor server 120, and vice versa. If each vendor server stores data on its own customers and its own transactions, the controller 110 could aggregate this data from each vendor server.

The databases 330, 340 and 350 are described in detail below and depicted with exemplary entries in the accompanying figures. As will be understood
20 by those skilled in the art, the schematic illustrations and accompanying descriptions of the databases presented herein are exemplary arrangements for stored representations of information. A number of other arrangements may be employed besides those suggested by the tables shown. Similarly, the illustrated entries of the databases represent exemplary information, and those skilled in the art will

understand that the number and content of the entries can be different from those illustrated herein.

Referring to FIG. 4, a table 400 represents an embodiment of the customer database 230 (FIG. 2) and/or the customer database 330 (FIG. 3). The table 400 includes entries 402, 404, 406 and 408, each defining a customer that may purchase items from a vendor. Such information may be determined, for example, when a customer registers for a frequent shopper card. Those skilled in the art will understand that the table 400 may include any number of entries. The table 400 also defines fields for each of the entries 402, 404, 406 and 408. The fields specify (i) a customer identifier 420 that uniquely identifies the customer, (ii) a name 422 of the customer, (iii) a billing address 424 of the customer, (iv) credit card information 426 which may be used to render payment in purchasing the items, and (v) an electronic mail ("e-mail") address 428 for communication with the customer.

For each entry of the table 400, the data specified by fields 422, 424, 426 and 428 may be received from the corresponding customer (e.g. via the corresponding customer terminal and/or vendor server that interacts with the customer). For example, the data may be provided when the customer makes a purchase from a vendor's Web site by requiring the customer to enter information into an HTML form provided on a Web page. Upon registration of a new customer, the controller 110 in the embodiment of FIG. 1A, or the vendor server 160 in the embodiment of FIG. 1B, would generate a unique customer identifier to store in the field 420 of the entry corresponding to the new customer. Once such information is stored for a customer, it may be retrieved upon reference to the appropriate customer identifier.

Referring to FIG. 5, a table 500 represents an embodiment of the vendor database 240 (FIG. 2). The table 500 includes entries 502, 504, 506 and 508, each defining a vendor that services customers and may have those customers receive offers for subsidies. Such information may be determined when a vendor registers for participation in the subsidizing program described herein. Those skilled in the art will understand that the table 500 may include any number of entries. The table 500 also defines fields for each of the entries 502, 504, 506 and 508. The fields specify (i) a vendor identifier 520 that uniquely identifies the vendor, (ii) a vendor name 522, (iii) a vendor e-mail address 524 for communication with the vendor, and (iv) an amount owed 526 to the vendor (e.g. promised but unpaid subsidy amounts).

For each entry of the table 500, the data specified by fields 522 and 524 may be received from the corresponding vendor (e.g. via the corresponding vendor server). For example, the data may be provided when the vendor registers with the controller 110 in the embodiment of FIG. 1A.. Upon registration of a new vendor, the controller 110 in the embodiment of FIG. 1A, or the vendor server 160 in the embodiment of FIG. 1B, would generate a unique vendor identifier to store in the field 520 of the entry corresponding to the new vendor. Once such information is stored for a vendor, it may be retrieved upon reference to the appropriate vendor identifier.

Referring to FIG. 6, a table 600 represents an embodiment of the transaction database 250 (FIG. 2) and/or the transaction database 350 (FIG. 3). The table 600 includes entries 602, 604 and 606, each defining a transaction with a vendor server. Typically, the transaction includes a purchase of items by a customer. Those skilled in the art will understand that the table 600 may include any number of entries.

5 The table 600 also defines fields for each of the entries 602, 604 and 606. The fields specify (i) a transaction identifier 620 that uniquely identifies the transaction, (ii) a time 622 of the transaction, (iii) the items ordered 624, (iv) credit card information 626 that may define a credit card account that was charged to pay for the items purchased, (v) an amount charged 628 for the items, (vi) a delivery address 630 for the items, and (vii) a customer identifier 632 (if any) that identifies the customer that made the purchase.

10 For each entry of the table 600, the data specified by fields 624, 626, 628, 630 and 632 may be received via the corresponding customer terminal. For example, the items ordered may be identified by being scanned by a bar code scanner that transmits a representative signal to a POS terminal. Alternatively, the items ordered may have been selected by a customer via a Web page displayed by his personal computer. Other ways to indicate items the customer desires to purchase will be apparent to those skilled in the art. Similarly, the credit card information may be read by a credit card reader that transmits a representative signal to a POS terminal. Alternatively, the credit card information may be entered by a customer into a form on a Web page displayed by his personal computer. Those skilled in the art will understand that other payment identifiers besides credit card information may be employed, such as debit card numbers, electronic cash identifiers. The use herein of a credit card as a means of payment is merely exemplary and not limiting on the scope of the present invention.

The data may be transmitted from the customer device to the controller 110 in the embodiment of FIG. 1A, or to the vendor server 160 in the embodiment of FIG. 1B. A unique transaction identifier may be generated and the time of the

transaction may be recorded (e.g. with reference to a clock signal generated by the customer terminal, vendor server, controller or other device). The transaction identifier and the time are stored in the fields 620 and 622 respectively of the entry corresponding to the new transaction. Once such information is stored for a transaction, it may be retrieved upon reference to the appropriate transaction identifier.

Referring to FIG. 7, a table 700 represents an embodiment of the subsidizer database 260 (FIG. 2). The table 700 includes entries 702, 704 and 706, each defining a subsidizing vendor that may subsidize purchases. Such information may be determined when a subsidizing vendor registers for participation in the subsidizing program described herein. Those skilled in the art will understand that the table 700 may include any number of entries. The table 700 also defines fields for each of the entries 702, 704 and 706. The fields specify (i) a subsidizing vendor identifier 720 that uniquely identifies the subsidizing vendor, (ii) a name 722 of the subsidizing vendor, (iii) an account 724 used to pay for the subsidies, (iv) an amount owed 726 by the subsidizing vendor, and (v) a rank 728 used to prioritize subsidizing vendors and/or subsidies from those subsidizing vendors. The ranks may be established periodically (e.g. once per year) based on various criteria. For example, the ranks may be adjusted dynamically based on the acceptance rates of offers from the subsidizing vendors and/or amount of funds the subsidizing vendors have provided in connection with their offers.

For each entry of the table 700, the data specified by fields 722 and 724 may be received from the corresponding subsidizing vendor (e.g. via the corresponding vendor server). For example, the data may be provided when the

subsidizing vendor registers with the controller 110 in the embodiment of FIG. 1A, or with the vendor server 160 in the embodiment of FIG. 1B. Upon registration of a new subsidizing vendor, the controller 110 in the embodiment of FIG. 1A, or the vendor server 160 in the embodiment of FIG. 1B, would generate a unique subsidizing vendor identifier to store in the field 720 of the entry corresponding to the new subsidizing vendor. The amount owed is calculated and updated for each subsidizing vendor. Typically, the amount owed is updated when an offer from a particular subsidizing vendor is accepted by a customer. The rank of each subsidizing vendor is updated according to a ranking scheme. For example, subsidizing vendors may pay for a preferential rank, and/or rank may be determined by the number (or percentage) of corresponding offers that are accepted. Once such information is stored for a subsidizing vendor, it may be retrieved upon reference to the appropriate subsidizing vendor identifier.

Referring to FIG. 8, a table 800 represents an embodiment of the offer rules database 270 (FIG. 2). The table 800 includes entries 802, 804, 806, 808 and 810, each defining, among other things, an offer rule. When an offer rule is satisfied during a transaction, the vendor provides an offer for a specified benefit, such as a subsidy. Such information may be determined when a subsidizing vendor registers for participation in the subsidizing program described herein. Those skilled in the art will understand that the table 800 may include any number of entries. The table 800 also defines fields for each of the entries 802, 804, 806, 808 and 810. The fields specify (i) an offer rule identifier 820 that uniquely identifies the offer rule, (ii) a subsidizing vendor identifier 822 that uniquely identifies the subsidizing vendor, (iii) customer activity 824 that is required in order for an offer to be provided, (iv) a

subsidy amount 826, (v) when the offer rule is effective 828 (i.e. other requirements in order to satisfy the offer rule), and (vi) an additional transaction 830 that is required of the customer in exchange for the subsidy. As described below, several types of transactions, such as additional purchases or initiating service agreements, may be
5 required of the customer.

Some types of customer activity in a Web embodiment include a mouse click on a predetermined portion of a Web page, on a predetermined banner advertisement, and on an indication of an item. Similarly, a mouse-over (indication of cursor location and/or movement) on a predetermined portion of a Web page and on
10 predetermined portions of Web pages at least a predetermined number of times may be desirable customer activities. Such customer activity can indicate, for example, that the customer is evaluating particular products on the Web site by clicking on particular links or placing the cursor over the links.

Some other types of customer activity in a Web embodiment include
15 performing a search for a predetermined item, opening or accessing an electronic cash account (e.g. an e-cash "wallet"), accessing predetermined Web pages, a predetermined number of predetermined Web pages, predetermined Web pages in a predetermined sequence, or
predetermined Web pages during a predetermined time period; a duration that the
20 Web site is open; and previous access to a predetermined Web site at least a predetermined number of times.

Other types of customer activity include a predetermined number of items that a customer is ready to purchase from a vendor (indicated, for example, by the content of the customer's virtual shopping cart), one or more predetermined items

that the customer is ready to purchase from a vendor, a duration that an item is selected for purchase, requesting a coupon for a predetermined item, an item having at least a predetermined price that the customer is ready to purchase from the first vendor, at least a predetermined number of previous purchases from the first vendor,
5 and frequent shopper status of the customer.

For each entry of the table 800, the data specified by fields 824, 826, 828 and 830 may be received from the corresponding subsidizing vendor (e.g. via the corresponding subsidizing vendor server) for each offer rule the subsidizing vendor establishes. For example, the data may be provided when the subsidizing vendor
10 registers with the controller 110 in the embodiment of FIG. 1A, or with the vendor server 160 in the embodiment of FIG. 1B. Upon creation of an offer rule, the controller 110 in the embodiment of FIG. 1A, or the vendor server 160 in the embodiment of FIG. 1B, would generate a unique offer rule identifier to store in the field 820 of the entry corresponding to the new offer rule. The corresponding
15 subsidizing vendor identifier would also be stored in the field 822. Once such information is stored for an offer rule, it may be retrieved upon reference to the appropriate offer rule identifier.

The customer activity that is required in order for an offer to be provided may be set by the subsidizing vendor. Alternatively, the required customer
20 activity may be set by the controller 110 for each subsidizing vendor. For example, the subsidizing vendor may be unable to decide which type of customer activity should be required. In still another embodiment, the required customer activity may be set and thereafter dynamically adjusted based on acceptance rates of provided offers.

Referring to FIG. 9, a table 900 represents an embodiment of the offers database 280 (FIG. 2). The table 900 includes entries 902, 904, 906, 908 and 910, each defining an offer for a subsidy. The offer was provided to a customer during a transaction of the customer with the vendor. Those skilled in the art will understand that the table 900 may include any number of entries. The table 900 also defines fields for each of the entries 902, 904, 906, 908 and 910. The fields specify (i) an offer identifier 920 that uniquely identifies the offer, (ii) a transaction identifier 922 that uniquely identifies the transaction during which the offer was provided, (iii) a subsidizing vendor identifier 924 that uniquely identifies the subsidizing vendor, (iv) an identifier of an offer rule 926 that was applied during the transaction, (v) when the offer was provided 928, (vi) an expiration date 930 (if any) for the offer, (vii) a subsidy amount 932, (viii) a total price 934 that the customer would have to pay without the subsidy, (ix) a total price 936 that the customer would have to pay with the subsidy, and (x) when the offer was accepted 938 (if it was accepted). As described above with reference to FIG. 8, offer rules define specific subsidies. Thus, the identifier of an offer rule stored in field 926 may be used to determine a corresponding subsidy amount.

The subsidy amount may be a fixed amount, such as \$50. The subsidy amount may further be dependent on various criteria such as the purchase total. For example, the subsidy amount could be for the lesser of the purchase total and \$50. Similarly, the subsidy amount could be for the lesser of a portion of the purchase total and \$50. For example, the subsidy amount could be for the lesser of \$50 and half the purchase total.

For each entry of the table 900, the data specified by fields 928, 934, 936 and 938 may be received from the corresponding customer terminal for each offer that has been provided. For example, when the offer is provided a new entry of the table 900 may be created. At that time, the date and time that the offer was provided
5 may be recorded (e.g. with reference to a clock signal generated by the customer terminal, vendor server, controller or other device), and the total price and the total price with the subsidy amount may be received, e.g., from the POS terminal. The field 938 of the new entry would initially be set to "open" to indicate that the offer is open (not yet accepted or rejected). Field 922, 924 and 926 of the new entry would be
10 set to the appropriate identifiers. Field 930 could be calculated from the field 928 (e.g. a predetermined time after the time in field 928 or "none" if there is no desired expiration date). Field 932 is determined from the corresponding offer rule applied, as described above with respect to field 826. Upon creation of an entry in the table 900, the controller 110 in the embodiment of FIG. 1A, or the vendor server 160 in the
15 embodiment of FIG. 1B, would generate a unique offer identifier to store in the field 920. Once such information is stored for an offer, it may be retrieved upon reference to the appropriate offer rule identifier. The field 938 may be updated when an offer is rejected or accepted.

Referring to FIG. 10, a table 1000 represents a record of an
20 embodiment of the offer summary database 290 (FIG. 2). The offer summary database 290 typically includes a plurality of records, each defining a summary of offers for subsidies that have been provided on behalf of a particular subsidizing vendor. The table 1000 includes a subsidizing vendor identifier 1002 that uniquely identifies the subsidizing vendor, a total number of offers provided 1004 on behalf of

the subsidizing vendor, a total number of those offers that were accepted 1006, and a total amount 1008 of the subsidies due in connection with accepted offers.

The table 1000 also includes entries 1010 and 1012, each defining offers provided due to satisfaction of an offer rule of the subsidizing vendor. Those
5 skilled in the art will understand that the table 1000 may include any number of entries. The table 1000 also defines fields for each of the entries 1010 and 1012. The fields specify (i) an offer rule identifier 1020 that uniquely identifies the offer rule, (ii) a number 1022 of offers provided due to the offer rule, (iii) a number 1024 of these offers that were accepted, and (iv) an amount 1026 of the subsidies due in connection
10 with these accepted offers. If desirable, the information stored in the offer summary database 290 (FIG. 2) may be organized by the vendor through which the offer was provided. Such an embodiment would allow a comparison of the acceptance rate of offers at different vendors.

For each subsidizing vendor, the controller 110 in the embodiment of
15 FIG. 1A, or the vendor server 160 in the embodiment of FIG. 1B, would create a record such as the record 1000 and store the subsidizing vendor identifier 1002. For each offer rule associated with the subsidizing vendor, a corresponding entry is created and the offer rule identifier is stored in field 1020. For each entry in the record, the data specified by fields 1022, 1024 and 1026 may be adjusted as offers are
20 provided and acceptances of the offers are received. For example, when an offer is provided, the corresponding offer rule is identified and thus the corresponding entry is identified. The field 1022 of that entry is increased by one to reflect the newly-provided offer. Similarly, when an offer is accepted, field 1024 of that entry is

increased by one to reflect the new acceptance and the amount of the subsidy associated with the accepted offer is added to the field 1026 of the entry.

The sum of the number of offers indicated by the field 1022 for all entries is stored as the total number of offers 1004 for the corresponding record.

5 Similarly, the number of offers accepted indicated by the field 1024 for all entries is stored as the total number of offers accepted 1006 for the corresponding record, and the sum of the amounts indicated by the field 1026 for all entries is stored as the total amount 1008 for the corresponding record. Once such information is stored for a subsidizing vendor, it may be retrieved upon reference to the appropriate subsidizing
10 vendor identifier. Accordingly, information for, e.g., account reconciliation for each subsidizing vendor may be derived from such information.

Referring to FIG. 11, a table 1100 represents a record of another embodiment of the offer summary database 290 (FIG. 2). In the illustrated embodiment, information is organized by offer rule. In one embodiment, for each
15 offer rule various types of customer activity may have been required. The results of each type of customer activity are summarized in the record.

Various types of customer activity may be required for an offer rule in order to test which customer activities are relatively successful in soliciting an acceptance of an offer. For example, every hour a different customer activity may be
20 required in order for an offer to be provided in accordance with the offer rule. In such an embodiment, each hour the controller 110 (FIG. 1A) may update the customer activity field 824 of an entry of the offer rules database 270 to reflect the new customer activity that is required. The most successful customer activity requirement may then be used in the future.

5 The offer summary database 290 can include a plurality of records,
each defining a summary of offers for subsidies that have been provided in response
to a customer activity in accordance with the offer rule. The table 1100 includes an
offer rule identifier 1102 that uniquely identifies the offer rule. The table 1100 also
10 includes entries 1104, 1106 and 1108. Each entry defines offers provided in
accordance with the offer rule and upon certain customer activity. Those skilled in
the art will understand that the table 1100 may include any number of entries. The
table 1100 also defines fields for each of the entries 1104, 1106 and 1108. The fields
specify (i) customer activity 1120 required for the offer, (ii) a number 1122 of offers
15 provided due to the particular customer activity for the offer rule, (iii) a number 1124
of these offers that were accepted, and (iv) an acceptance rate 1126 (the ratio of offers
accepted to number of offers provided). If desirable, the information stored in the
offer summary database 290 (FIG. 2) may be organized according to other
information.

15 For each offer rule, the controller 110 in the embodiment of FIG. 1A,
or the vendor server 160 in the embodiment of FIG. 1B, would create a record such as
the record 1100 and store the offer rule identifier 1102. For each customer activity
that was or is associated with the offer rule, a corresponding entry is created and an
indication of the customer activity is stored in field 1120. For each entry in the
20 record, the data specified by fields 1122, 1124 and 1126 may be adjusted as offers are
provided and acceptances of the offers are received. For example, when an offer is
provided in response to a particular customer activity, the corresponding entry is
identified. The field 1122 of that entry is increased by one to reflect the newly-
provided offer. Similarly, when an offer is accepted, field 1124 of that entry is

increased by one to reflect the new acceptance and the acceptance rate is calculated and stored in the field 1126 of the entry. Once such information is stored for an offer rule, it may be retrieved upon reference to the appropriate offer rule identifier.

Referring to FIG. 12, a table 1200 represents an embodiment of the
5 item database 340 (FIG. 3). The table 1200 includes entries 1202 and 1204, each defining an item sold via a vendor server. Those skilled in the art will understand that the table 1200 may include any number of entries. The table 1200 also defines fields for each of the entries 1202 and 1204. The fields specify (i) a item identifier 1220 that uniquely identifies the item, (ii) an item description 1222, (iii) an item price 1224
10 for which the item is typically sold, and (iv) an availability 1226 of the item which may be based on an inventory level of the item.

For each entry of the table 1200, the data specified by fields 1222, 1224 and 1226 may be received from the corresponding vendor. For example, the data may be provided when a vendor prepares to sell the item. Upon the entering of a
15 new item, the vendor server would generate a unique customer identifier to store in the field 1220 of the entry corresponding to the new item. Once such information is stored for an item, it may be retrieved upon reference to the appropriate item identifier.

Referring to FIG. 13, a flow chart 1300 illustrates an embodiment of a
20 method for providing an offer for a benefit (e.g. a reduced price) to a customer that is to purchase items from a vendor. Although the illustrated method is described below as being performed by the controller 110 in the embodiment of FIG. 1A, the illustrated method may alternatively be performed by the vendor server 160 in the embodiment of FIG. 1B.

The information may also be received via a sensor that senses the presence or location of a customer. For example, infrared or pressure sensors may be disposed in a store and operable to sense when a customer is near particular products or areas.

5 The information may also be received via a device that scans items with a bar code scanner and provides the prices of those items that are scanned. Such devices are known and are frequently disposed in supermarkets to allow customers to determine the prices of items, especially items that are on sale or otherwise subject to special pricing.

10 It is then determined whether an offer for a subsidy should be provided (step 1304). In one embodiment, the information relating to customer activity dictates whether the offer is provided. For example, as described in detail below there may be one or more rules specifying customer activity that is required. If an offer should not be provided, then the controller 110 interacts with the customer conventionally (step
15 1306).

 Otherwise, an offer for a subsidy from a second vendor is determined (step 1308). For example, in an embodiment where one or more rules are included, if a rule is satisfied a corresponding offer for a subsidy is provided. An indication of the offer (or offers) is provided to the customer (step 1310). For example, text and/or
20 images may be displayed on a Web page that is displayed on the customer terminal, text may be displayed on a monitor of a POS terminal, or an audio signal may be transmitted via an IVRU to a telephone.

 The indication of the offer may be provided via a device, such as a PDA (Personal Digital Assistant) or a display mounted on a shopping cart of the

customer, that accompanies the customer as he browses a store. Similarly, a display disposed in a particular location in the store (e.g. below a product display) may provide an offer to a customer that is near particular products or areas.

5 The indication of the offer may be provided via a device that scans items with a bar code scanner and provides the prices of those items scanned. In one embodiment, such a device could display an offer upon scanning the bar code of an item.

10 The offer typically specifies a subsidy amount and an obligation to fulfill in exchange for the subsidy. For example, an additional transaction may be required of the customer. In an embodiment where the second vendor provides services, the customer may be required to sign up for a service that is provided by the second vendor (e.g. initiate a service agreement with the second vendor). The customer may be required to switch from a current service provider to the second vendor, so that the service will no longer be provided by the current service provider.

15 Examples of services include telephone service, Internet service, banking services, credit card account services, insurance service, securities trading service, utilities service, satellite television service, or cable television service. Telephone service can include long distance service such as is provided by Sprint Communications Company, L.P or wireless service such as is provided by AT & T.

20 Signing up for banking services may include the requirement to transfer a particular minimum balance to a new bank account. Signing up for credit card account services may similarly include the requirement to apply for a credit card account and/or transfer a particular minimum balance to a new or existing credit card account.

Signing up for securities trading services may include the requirement to open an account with a particular minimum balance amount.

The controller 110 receives an indication of items the customer desires to purchase (step 1312). For example, the items may have been scanned by a bar code scanner and thus identified by a POS terminal. Alternatively, the items may have been selected by a customer via a Web page and put in a virtual "shopping cart". Other ways to indicate items the customer desires to purchase will be apparent to those skilled in the art.

The controller 110 also receives a response to the offer from the customer terminal (step 1314). The customer may indicate his response by, for example, clicking a button on a Web page, actuating particular keys on a touch-tone telephone, actuating a button on a keypad in communication with a POS terminal, or verbally responding to a cashier that actuates buttons on the POS terminal.

If the response does not indicate an acceptance of the offer (step 1316), then the controller 110 interacts with the customer conventionally (step 1306). Otherwise, the offer is accepted and the customer is charged a lower price for the items than he otherwise would have been charged (step 1318). The customer may even get the items for free or receive a credit (e.g. money back or store credit). In another embodiment, the benefit to the customer may be different than a reduced price on the items he desires to purchase. For example, the customer may be given a product upgrade to another (higher value) item or the customer may be given an additional item at a discount or for free. The customer may also be provided with cash, store credit or other monetary award.

The customer may be charged the lower price in single transaction.

For example, if an item is normally sold for \$80, but is sold to a particular customer for \$60 in connection with an offer for a subsidy, a credit card account of the customer may be charged \$60 in one transaction. Alternatively, the customer's credit

5 card account may be charged \$80, and then subsequently credited for \$20 ($\$20 = \$80 - \60).

Referring to FIG. 14, a flow chart 1400 illustrates an embodiment of a method for providing an offer for a benefit to a customer that is to purchase items from a vendor. In particular, in the illustrated embodiment one or more rules

10 determine which offers (if any) are provided to a customer. Although the illustrated method is described below as being performed by the controller 110 in the embodiment of FIG. 1A, the illustrated method may alternatively be performed by the vendor server 160 in the embodiment of FIG. 1B.

Information relating to customer activity of a customer with a first

15 vendor is received (step 1402), as described above. The controller selects an offer rule to evaluate against the customer activity (step 1404). The rule may be defined by and selected from the offer rules database 270 (FIG. 2). For example, referring again to FIG. 8, each entry of the table 800 defines an offer rule. Accordingly, the controller 110 may select an entry of the offer rules database 270 (e.g. starting with

20 the first entry).

As described above, each offer rule includes customer activity that is required in order for an offer to be provided. Accordingly, the received information relating to customer activity may be compared with the customer activity that is required by the offer rule (step 1406). If the customer activity does not satisfy the

offer rule, then it is determined whether there are more offer rules that have not yet been so compared to the received information (step 1408). If there are not any more offer rules, then the controller 110 interacts conventionally with the customer (step 1410).

5 If there are more offer rules, then another offer rule is selected (step 1404). For example, the next entry in the offer rules database 270 may be selected. Those skilled in the art will realize that the offer rules need not be selected according to the sequence defined by the offer rules database 270.

10 If the customer activity does satisfy the offer rule, then the controller 110 determines if the offer rule is otherwise effective (step 1412). For example, referring to FIG. 8, each entry of the table 800 defines other requirements necessary in order to satisfy the offer rule (i.e. the field 828). If the rule is not otherwise effective (i.e. the other requirements are not satisfied), then it is determined whether there are more offer rules that have not yet been so compared to the received information (step 1408). If there are not any more offer rules, then the controller 110 interacts conventionally with the customer (step 1410). Otherwise, another offer rule is selected (step 1404).

20 If the offer rule is otherwise effective, then the controller 110 generates an offer (step 1414). The offer indicates the subsidy amount (specified by the field 826 of the corresponding entry) and an additional transaction required (specified by the field 830 of the corresponding entry). An indication of the offer is provided to the customer (step 1416), as described above. If there any more offer rules, then they are in turn selected and evaluated as described above.

specifies an offer. The controller 110 provides an indication of the offer (including its associated obligation) to the customer (step 1510).

The controller 110 receives an indication of items the customer desires to purchase (step 1512). The controller 110 also receives a credit card account
5 identifier (step 1514), such as a credit card number. The credit card account identifier may be received, for example, via a credit card authorization terminal that is in communication with a POS terminal, as is known to those skilled in the art.

The credit card account is charged a lower price for the items than otherwise would have been charged (step 1516). The customer may even get the
10 items for free. The controller 110 determines whether the customer has fulfilled the obligation of the offer (step 1518). For example, the obligation could be a requirement to sign up for a service provided by the second vendor. In such an embodiment, the second vendor may provide, for example, telephone service, Internet service, banking services, credit card account services, insurance service, securities
15 trading service, satellite television service, or cable television service. The obligation may further include a requirement that the service be maintained for a particular amount of time.

In some embodiments, the customer may have been required to fulfill the obligation before his credit card account is charged. For example, the customer
20 may have been required to fill out a credit card application before completing the purchase of his items. In other embodiments, the obligation may be need to be fulfilled at still other times.

The controller 110 can access a list of new or existing customers to determine whether the customer has fulfilled his obligation by signing up (and

therefore becoming a new customer). The controller 110 could access such a list periodically (e.g. every week) or upon demand (e.g. the controller receives the names of new customers as they become available). Alternatively, the controller 110 could query the subsidizing vendor server, and in response receive a signal that indicates whether the customer had signed up for service from the second vendor. Similarly, the customer could be required to switch service providers from another service provider to the second vendor.

If the customer has fulfilled the obligation, then the controller 110 records the time and date the obligation was fulfilled (step 1520). The time and date may be stored, for example, in the field 938 of the entry corresponding to the offer. In such an embodiment, fulfilling the obligation may be considered acceptance of the offer.

If the customer has not fulfilled the obligation, then it is determined whether the offer has expired (step 1522). The expiration date and time of an offer is indicated by the field 930 of the offers database 280 (FIG. 2), and may be calculated based on the time the offer was provided. If the offer has expired without the obligation being fulfilled, the credit card account of the customer is charged for the difference between the item price and the lower price previously charged (step 1524). This step assesses a penalty against the customer by removing the benefit that was previously provided to the customer if the customer does not fulfill the obligation within the allotted time. For example, if the credit card account was previously charged \$80 (in one or more transactions) in step 1516 for a \$95 item, then in step 1524 the credit card account is charged \$15 ($\$15 = \$95 - \80). Thus, if the obligation is not fulfilled, the credit card account is charged \$95 in total (\$80 and \$15), which is

the conventional price for the item. An even larger amount may be charged (i.e. greater than \$15 in the above example) if desired to deter customers from reneging on the obligation.

Referring to FIG. 16, a flow chart 1600 illustrates an embodiment of a method for determining whether customers have fulfilled their obligations associated with an offer for a benefit. Although the illustrated method is described below as being performed by the controller 110 in the embodiment of FIG. 1A, the illustrated method may alternatively be performed by the vendor server 160 in the embodiment of FIG. 1B.

In the illustrated embodiment the obligation is to become a new customer of a subsidizing vendor. For example, the customer may have been obliged to initiate a new service agreement so that a particular service is provided to the customer by the subsidizing vendor. Those skilled in the art will understand the various modifications required in embodiments with other types of obligations.

The controller 110 selects a customer from a list of new customers (step 1602) of the subsidizing vendor. The list of new customers may be generated by the subsidizing vendor and transmitted to the controller 110 periodically (e.g. every week) or upon request. Such a list may be compiled by the subsidizing vendor as customers sign up for service and/or complete prerequisites for becoming a customer. Customers may be selected from the list, for example, in the order that they signed up during a predetermined period of time.

The controller 110 then determines if the selected customer has been offered a subsidy (step 1604). The controller may determine whether the selected customer is represented in any entry of the offers database 280. For example,

referring again to FIG. 9, each entry of the table 900 includes in field 922 an indication of the transaction during which the offer was provided. The corresponding entry of the transaction database 250 in turn indicates a customer identifier (e.g. the field 632 of the table 600). If the selected customer has not been offered a subsidy, then the controller 110 determines whether there are more customers that have not yet been selected (step 1610). Another customer is selected (step 1602) as long as there are more customers in the list that have not been selected.

If the selected customer has been offered a subsidy, the controller 110 determines if the offer for the subsidy included an obligation to become a customer of the subsidizing vendor (step 1606). For example, referring again to FIG. 9, each entry of the table 900 includes in field 926 an indication of the offer rule applied during the transaction. The corresponding entry of the offer rules database 270 in turn indicates an additional transaction required of the customer (e.g. in the field 830 of the table 800). Thus, the controller 110 determines whether the presence of the selected customer on the list of new customers indicates fulfillment of a previous obligation.

If the offer for the subsidy included an obligation to become a customer of the subsidizing vendor, then the controller 110 records that the selected customer has fulfilled his obligation (step 1608). For example, the time and date that the customer became a new customer of the subsidizing vendor may be recorded in the field 938 of the corresponding entry of the table 900. Then additional customers, if any, are selected and processed similarly (e.g., steps 1610 and 1602). Customers that have not fulfilled their respective obligations may eventually be penalized in some manner, for example, by charging their credit card accounts a penalty fee amount.

In contrast to the above-described method, the controller 100 could search a list of customers that have accepted offers, rather than a list of new customers, in order to determine whether those customers have become new customers of the specified vendor.

5 Referring to FIG. 17, a flow chart 1700 illustrates an embodiment of a method for providing an offer for a benefit after a customer has made a purchase from a first vendor. Although the illustrated method is described below as being performed by the controller 110 in the embodiment of FIG. 1A, the illustrated method may alternatively be performed by the vendor server 160 in the embodiment of FIG. 1B.

10 The controller 110 selects a customer from the list of customers that have purchased from the first vendor (step 1702). For example, as is known in the art the first vendor may record the name, address, telephone number and/or e-mail address of each customer that purchases items within a predetermined time period (e.g. each month). The customer selected from the list may be, for example, the first
15 customer that purchased items during a predetermined period of time. When a customer makes a purchase, the vendor server may determine if contact information of the customer is stored. For example, the vendor server may determine whether the customer is a member of a frequent shopper program (in which contact information is typically obtained upon registration). Alternatively, it may be determined whether the
20 customer filled in a form on a Web page that requests contact information. If contact information of the customer is not stored, the vendor server can then request contact information of the customer, and wait for the customer to provide that contact information.

The controller then determines whether the selected customer should be provided an offer for a subsidy (step 1704) from a second vendor, as described above. If the customer should not be provided with an offer for a subsidy, then the controller determines whether there are more customers on the list (step 1708). If so,
5 then another customer is selected (step 1702).

If the customer should be provided with an offer for a subsidy, then the controller 110 provides an indication of the offer for a subsidy to the selected customer using contact information of the customer (step 1706). The indication of an offer may be provided, for example, via e-mail, postal mail, and/or telephone. For
10 example, the controller 110 may generate a textual message specifying the offer, and then transmit that message via e-mail to an e-mail address of the customer. The controller 110 may also generate a textual message which is printed onto a sheet of paper, and a postal mail address which is printed onto a mailing label. The mailing label is used in directing the sheet of paper to the customer via conventional postal
15 mail. For example, the offer may be provided on a credit card billing statement of the customer. The controller 110 may also generate an audio message which is transmitted via a telephone to the customer by connecting to the appropriate telephone number.

Although the present invention has been described with respect to a
20 preferred embodiment thereof, those skilled in the art will note that various substitutions may be made to those embodiments described herein without departing from the spirit and scope of the present invention. For example, although in many of the described embodiments above the benefit provided to the customer is a subsidy,

there are many other types of benefits which are contemplated by the present invention.